Claims:

1. Apparatus for transporting workpieces in a press, press line, multi-stage press for large components or the like, each processing station (6.1 - 6.n) having an independent transporting apparatus (2.1 - 2.n) which transports the workpiece and is intended for executing a biaxial transporting movement, characterized in that the transporting apparatus (2.1 - 2.n) comprises a drive system which is intended for a crossmember (25) provided with workpiece-retaining means and which has stationary drives, in particular drive motors (A1, A2, 16, 17, 39, 40), which each act on movement-transmission means (8 - 13, 16 - 24, 41 - 49), a regulation of the direction of rotation and of the rotational speed and/or standstill of the drives, in particular drive motors, bringing about a co-ordinated movement of the movement-transmission means such that any desired programmable traveling curve of the crossmember (25) is possible.

2. Apparatus according to Claim 1, characterized in that the crossmember (25) is mounted on a slide (36, 53) with linear guide (29, 37, 56,57).

3. Apparatus according to Claims 1 ~~and~~ or 2, characterized in that the movement-transmission means (8 - 13, 16 - 24, 41 - 48) is designed as a rack drive for executing a longitudinal movement and/or a lifting and/or lowering movement of a slide (36, 53) for the crossmember (25).

4. Apparatus according to one of the preceding claims, characterized in that a longitudinal movement and/or a lifting and/or lowering movement of the bearing slide (36, 53) for the crossmember (25) takes place by means of two parallel racks (19, 21, 42, 44) which can be driven, via gearwheels (18, 20, 41, 43),

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by stationary drives, in particular drive motors (16, 17, 39, 40).

5. Apparatus according to one of the preceding claims, characterized in that the 2 parallel racks (19, 21) are arranged horizontally.

6. Apparatus according to one of the preceding claims, characterized in that the 2 parallel racks (42, 44) are arranged vertically.

7. Apparatus according to one of the preceding claims, characterized in that two parallel racks (19, 21, 42, 44) or the like act jointly on drive gears (22, 23, 45) such that it is possible to set a lifting and/or lowering movement of a carrying slide (36, 51, 53).

8. Apparatus according to one of the preceding claims, characterized in that the gearwheels (22, 23, 45, 46) connected to one another via a common shaft (38, 47) are mounted in the slide (36, 51), and in that the gearwheel (22, 45) is fastened at one end of the shaft (38, 47) and gearwheel (23, 46) is fastened at the other end of the shaft (38, 47).

9. Apparatus according to one of the preceding claims, characterized in that the crossmember (25) is arranged pivotably and the drive (26) for the pivoting movement is fastened on the slide (36, 53).

10. Apparatus according to Claim 1, characterized in that an adjusting and lifting apparatus (4) is provided for a lifting and/or lowering movement of the transporting system (2) or component systems (2.1 - 2.n).

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11. Apparatus according to one of the preceding claims, characterized in that the rack-gearwheel drive

is replaced by a spindle drive with threaded spindle and step-down gear mechanism or toothed-belt drive with toothed-belt pulley.

12. Apparatus according to one of the preceding claims, characterized in that movement-transmission means (49) is a toothed belt (49) with deflecting rollers (50), and the toothed belt (49) is firmly connected to vertical slide (51) via a fixed point (52) and to horizontal slide (53) via a fixed point (54).

13. Apparatus according to Claim 1, characterized in that movement-transmission means (8 - 11, 18 - 22) run horizontally in the transporting direction and, transversely to the transporting apparatus, are offset in each case in relation to following movement-transmission means (18.1 - 22.1).